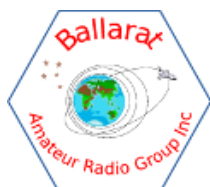


Ballarat Amateur Radio Group Inc. (BARG)

HAMVENTION

Sunday February 4 2024



BARG Newsletter

Ballarat Amateur Radio Group Inc. #6953T

October 2023 Monthly Newsletter



Next Meeting AGM BARG inc
11:00am, Saturday 28th October 2023
At the Airport - All Welcome



Contacting us

BARG@BARG.ORG.AU

We're on the web.

www.barg.org.au

https://twitter.com/vk3_barg

<https://www.facebook.com/groups/VK3BML/>

Contents

Contents.....	2
New Dates and Times of BARG General Meetings.....	3
Construction Sessions/Days	3
President's Report October 2023	4
BARG Hamvention 2024.....	5
Spring VHF-UHF Field Day 2023	6
The Story of an Icom IC905 Microwave Assembly	7
Ballarat Jaycar Store is Now Open	10
What Connector, Where Do You We Use It	11
WIA Election of Directors, Call for Nominations.....	14
One Day Expedition to Mt William	15
The SPARC Rosebud Radio Fest	18
The Other End to the One Day Expedition to Mt William	19
Come Along to the BARG Coffee Mornings.....	20
13th Annual Keith Roget Memorial National Park Award.....	21
Musings from the Doc, VK3CFH.....	22
Some Very Recently Issued 100years Awards.....	23
The Portland and South West Radio Group have a regular 2m SSB Net	24
Magazine Reviews.....	24
Amateur Radio Vol 91 No 5 2023 Review	24
QST October 2023 Review	26
Silicon Chip October 2023 Review	29
DIYODE October 2023 Review.....	31
Back Copies of BARG inc. Newsletters.....	32

Times and dates of nets as below

Club Nets: VHF NET: Every Tuesday Night at 8 pm on 146.750 MHz - VK3RBA

HF NET: Every Thursday Night at 8 pm on 3.608 MHz - VK3BML

6m NET: Every Tuesday Night at 8:30 pm on 53.650Mhz RX / 52.650Mhz TX - FM with a 91.5 tone - VK3RWU

LINKED REPEATERS: The local VK3RBA-70cm repeater on Mt Buninyong is part of a network of linked repeaters covering North-Western Victoria.

Access details for this repeater have recently changed.

For full details of this linked network and access details see <https://www.grz.com/lookup/vk3rba>

You can listen to the system live <http://vk3rba.dyndns.org:441/>

This linked system may be accessed via IRLP node 9503.

BARG inc. OFFICE BEARERS

President	Ben Daniel VK3NRD	Ordinary Member	Tom George VK3DMK
Vice President	Colin Consiglio VK3NCC	Ordinary Member	Colin Consiglio VK3NCC
Secretary	Mal White VK3OAK	Ordinary Member	Doug Ellery VK3DRE
Treasurer	Chris Huggins VK3QY	Ordinary Member	David Martin VK3KQT
Ordinary Member	Craig Cook VK3KG	Ordinary Member	Lachlan Macdonald VK3ALM
Ordinary Member	Ian Fairweather VK3YFD		

New Dates and Times of BARG General Meetings



The meeting dates for the next 2 months still remain Saturdays at 11.00am are as follows:

The next meeting is
Annual General Meeting. Saturday 28th of October 2023.
11:00am

Construction Sessions/Days

Are on the next two dates:

Saturday November 4th at 1pm

Saturday December 2nd at 1pm





President's Report October 2023



Ben will be giving his report at the AGM

Next Meeting AGM BARG inc
11:00am, Saturday 28th October 2023
At the Airport
All Welcome - BBQ Afterwards

Note: Only 2022-2023 members are eligible to vote.



Pastor Shep



BARG Hamvention 2024



Ballarat Amateur Radio Group Inc. (BARG)

HAMVENTION

Sunday February 4 2024

At the Ballarat Polo-Crosse Club's Facility,
Ballarat Airport

Display and Sales (setup from 8am on the day)

Trade Table \$20.00 includes one admission,
(Space for 70+ tables, this is the big one!)

General Admission \$ 7.00 (accompanied under 15 free)

STRICTLY 10:00 AM START

Food and drink will be available on the premises

Enquiries and up to date details: BARG on the web www.barg.org.au



Bookings can be made at the BARG Web Site. <https://www.barg.org.au/>



[Home Page](#)

[Newsletters](#)

[Repeaters](#)

[Contact Us](#)

[What's On](#)

[*Members Area*](#)



Welcome to our home page

! News FLASH !

[Hamvention 2024 Information and booking form open](#)

! News FLASH !

Spring VHF-UHF Field Day 2023

0100 UTC Saturday 25th through 0059 UTC Sunday 26th November 2023
(0400 / 0359 in VK6).

Contest Scoring

VHF-UHF Field Days employ distance-based scoring, using your **6-character** Maidenhead locator (the Sub-Square).

Full details of the scoring system are set out in the Rules.



Further Information on Maidenhead Locators

Each four-digit Maidenhead locator (Square) identifies an area which covers one degree of latitude and two degrees of longitude. Detailed explanation of the Maidenhead locator system can be found in the Download section below. Also available is a computer program that can convert latitude and longitude into grid locators, and vice versa.

To find the six digit Maidenhead locator for any location, click this [Link](#).

Submitting Your Log

Logs should be accompanied by a cover sheet, as described in the rules. A sample scoring sheet is available for download at the bottom of this page.



Only electronic logs in ASCII (.txt) format are accepted now, unless some disability necessitates a paper log, which must be submitted as set out in the Rules. Upload your log files to the Field Day web site via this [Link](#)

Contest Results

The aim is to have results finalised approximately four weeks after the Field Day, with the results posted here, publicised via the usual WIA channels and then published subsequently in Amateur Radio magazine.

Contest Award

Each top-scoring station in every Section–Sub-section will receive a colour certificate in .PDF format, sent to the contact email address on their log cover sheet.

Top-scoring Foundation stations will also receive a colour certificate.



Logging Software

Any logging software can be used so long as the necessary information is included in the log. Please refer to the rules for details about this. A suitable logging program is VK Contest Log, developed by Mike VK3AVV.

<https://www.wia.org.au/members/contests/vhfuhf/>

The Story of an Icom IC905 Microwave Assembly

Contributed by Nik, VK3BA

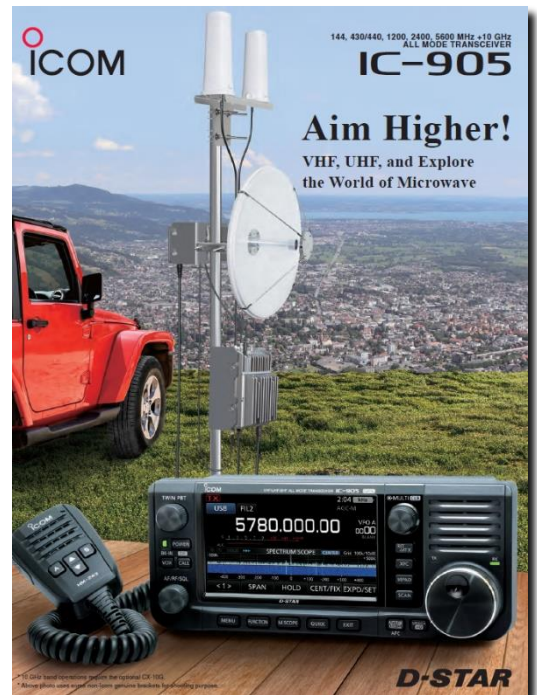
Back in mid-2021 when parts of the world were still in lockdown, Icom launched a project called the “Icom SHF Project – Super High Frequency Challenge” to develop further use of the 2.4GHz & 5.7GHz Amateur Radio bands.

By Feb 2022, further development included an in-built GPS receiver for positional information as well as using for frequency stability. Also came the decision to develop the new radio into an indoor/outdoor or split solution to overcome feedline losses and high frequencies, by having the outdoor unit next to or nearby the antennas, with the control unit remotely located inside the shack via a Power Over Ethernet or POE link via a length of Cat5 or Cat6 cable.

By April 2022, a prototype of what was called the Icom SHF-P1 at the time with the 2.4G & 5.7G bands and was shown at the Dayton Hamvention.

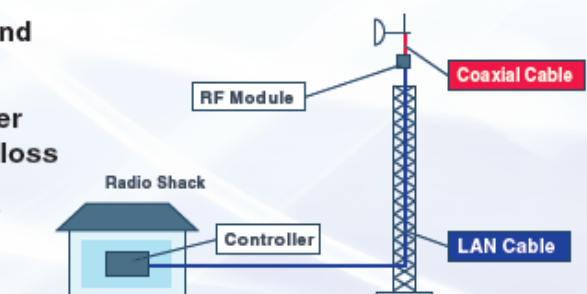
Because of the high amount of interest and further suggestions, it wasn't long that the Icom SHF-P1 was redeveloped to also include the 2m, 70cm, 23cm and soon after 10GHz. This new prototype was renamed as the IC-905 and was first shown to the world at the Tokyo Hamfair in August 2022. After a very long period of anticipation and global demand as well as a sneak peak in Hobart in November 2022 and the EMDRC in May 2023, the IC-905 kits started arriving in Australia in June and the 10GHz modules in September of this year.

Icom Australia & Strictly Ham have been overwhelmed with orders and as I write, there is still a substantial backorder list. The IC-905 covers all Australian



144–5600 MHz / 10 GHz Coverage VHF / UHF / SHF Multi-Bander

- 144 – 5600 MHz / 10 GHz* coverage with all modes (* Optional CX-10G Transverter required)
- The separate configuration with the controller and RF module mounted directly under the antenna
- The LAN cable connection between the controller and the RF module significantly reduces power loss
- PoE (Power over Ethernet) technology improves the location of the RF module installation
- ATV (Amateur TV) in the analog FM mode



amateur bands from 2m to 10GHz except for 3.4GHz, of which Australia is one of the few countries to still have access to a small segment of this band. Detailed



specifications can be found on the Icom website.

But in summary, the bands 2m, 70cm & 23cm have a power output of up to 10W, on 2.4GHz & 5.7GHz up to 2W and 10GHz up to 500mW on most modes including SSB, AM, FM, D-Star DV & DD and Amateur TV. Amongst its many features, the touch screen also features a waterfall /spectrum-scope display, much like other current Icom radios such as the IC-705, IC-9700, etc.

Peter VK3APW has performed some bench testing of his full IC-905 system, and he's found the microwave RF performance to be similar to that of Kuhne modules. In recent weeks, Icom Japan has demonstrated a pre-production 24Ghz module. So, keep an eye out for that. For anyone starting out of the microwave bands, this is a great way to go and is cost comparable to building your own system including an IF rig, Kuhne transverters, Minikit sequencers, PA's, plumbing, housing, etc.

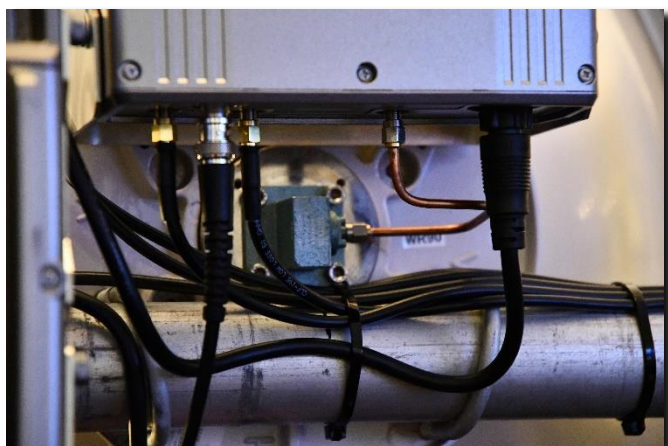
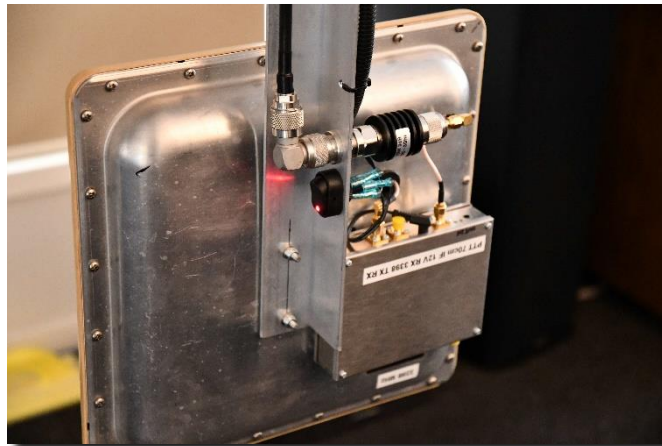
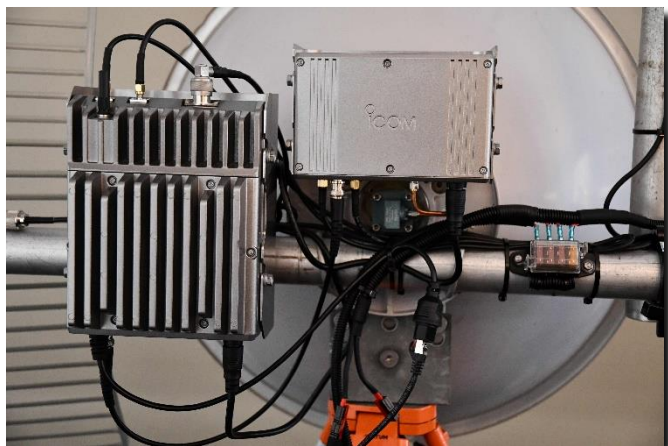
I have assembled my IC-905 system for portable use and as a roving station during the VHF/UHF Field Day weekends, as well as the recently re-introduced Microwave Activity Days. I've also included a GARC panel antenna & SG-Labs transverter for the 3.4GHz



band, using a 430MHz IF from the IC-905. For my 2m & 70cm operations, I use an IC-705 and dual-band Yagi on a separate stand.

I can deploy this whole system within 15 minutes from arriving on site and pack it all up within 10 minutes. To transport, I remove the tripod, 2.4GHz gridback and 3.4GHz panel antenna – otherwise the rest of it easily fits into the back of my Toyota Prado.

The release of the IC-905 and the recently re-introduced microwave afternoons have seen a lot of new activity & new faces up on the Gigglehurts bands. These are exciting times for our microwave bands – use them or lose them. More information on the IC-905 is available all over the web and on YouTube.



ATV (Amateur TV) Mode

The IC-905 is compatible with the ATV (FM-TV, NTSC, PAL or SECAM) mode. With an analog camera connected, the IC-905 can transmit video, and receive a real-time video. Furthermore, received videos can be shown on the display with composite video input.



Thanks goes to Peter VK3APW for his guidance and problem solving with this build.

Cheers, Nik VK3BA

https://www.icom-australia.com/products/amateur/ic-905/IC-905_USA.pdf

https://device.report/m/a10017095a266605ec8d9d0ab21d3ebb9bc86a169b7701b4b82a7b25bec3ff7d_optim.pdf

<https://device.report/m/9938128466729bb85cba6ba1a6dafdc1724e0d92533ca0ed258d5d9aeedf1f33.pdf>



Ballarat Jaycar Store is Now Open

31-35 Mair Street, Ballarat, Victoria

03 5303 0729

www.jaycar.com.au Ballarat@jaycar.com.au

Mon 08:30 AM - 05:30 PM

Tue 08:30 AM - 05:30 PM

Wed 08:30 AM - 05:30 PM

Thu 08:30 AM - 05:30 PM

Fri 08:30 AM - 07:00 PM

Sat 08:30 AM - 05:00 PM

Sun 10:00 AM - 04:00 PM



What Connector, Where Do You We Use It

Contributor Nick, VK2DX, <https://dxing.com.au/>

When I arrived in Australia 30 years ago, I was already a Master Watchmaker - but I could barely speak English.

What made things worse: in communication with spare parts suppliers, I really struggled with part names; in Europe the language of horology is German or French, not English.

There was no Google or internet and no mobile phones capable of conveying images.

To put it mildly: to the sales staff I was a laughing stock, a source of endless entertainment and an ignorant foreigner. Yet if they only invested 15 minutes to teach me part names, they would have made much more money from me. Fast forward 30 years later - I am still in business, all my suppliers are long gone.

The reason for this cameo: the table has turned.

Now, I am the one who sells parts. And unlike ignorant mongrels in my industry, I don't pretend to know it all. Actually, a vast majority of subscribers know much more about connectors than I do.

So, this quick article is for perhaps a few who need a bit of help with ordering connectors, cables, patches, and adapters.

It's really important that we speak the same language.

1. The most common connector used on HF is actually called a "UHF" connector.

UHF connector was designed in the 1930s for military purposes, at a time when a frequency above 30 MHz was called UHF. That's where the name came from.

Nowadays, we refer to UHF specifically as a band segment between 300MHz and 3GHz. So, to remain calling it UHF is both wrong and confusing. Yet, it is what it is. The military name was PL-259 for the male connector and SO-239 for the socket; and it is widely used in communication applications from 0-100 MHz and even beyond.

Good power handling in amateur radio applications, average impedance characteristics, kind of a 'she'll be right' connector. You can call it UHF, HF, PL - as confusing as it sounds, it's the same thing.



2. N type connector

The N connector is a threaded, weatherproof, medium-size RF connector used to join coaxial cables. It was one of the first connectors capable of carrying microwave signals and was invented in the 1940s by Paul Neill of Bell Labs, after whom the connector is named. Power rating: 5KW on 20MHz and 500W at 2GHz.

Male connector is called N male and female - N female. Easy.



3. BNC

The BNC connector (initialism of "Bayonet Neill-Concelman") is a miniature quick connect/disconnect radio frequency connector.

It is designed to maintain the same characteristic impedance of the cable, with 50-ohm and 75-ohm types being made. It is usually applied for video and radio frequency connections up to about 2GHz or low power HF applications.

Seen on all sorts of measuring equipment, commonly used on receiving antennas and QRP radios.



4. Adaptors

Thanks to modern manufacturing, nowadays there is practically any adaptor you can think of, available at a really low price.

The adaptor's role is to 'join' different types of connectors or interchange 'genders'.

This particular adaptor is known under multiple names: double SO-239, UHF female to UHF female, PL barrel, or under the old, designated military name SO-238.

Now, if you are thinking to yourself 'well nothing new, I know all of this' then - fantastic. If you order the 'wrong' cable with preinstalled connectors or 'wrong' adaptor,



there will be no refund on your order. However, if you call (or email) saying - 'I am still new to this' then worry not, I am here to assist you. If we got it wrong, just send it back for replacement. One thing is sure: I won't make fun of you, no matter what.

A number of subscribers have asked: are there any other brands to be stocked? The answer is yes - but at the moment I don't want to disclose too much. This week a dealership contract has been signed with a major manufacturer (not Yaesu!) and I am super excited to represent them soon in Australia.

Thank you for your time.

73, Nick, VK2DX

To subscribe to Nick's emails: <http://eepurl.com/iyCZyM>



www.DXing.com.au

Suite 403, Level 4, Culwulla Chambers
67 Castlereagh St. Sydney 2000 NSW

Phone: (02) 9232 0500

mail@DXing.com.au

WIA Election of Directors, Call for Nominations.



A notice will be published in the November / December edition of the Institute's magazine "Amateur Radio" calling for nominations from members for election to join the Board of Directors of the WIA.

Three directors retire at the conclusion of the next Annual General Meeting which will be held in May 2024, namely Lee Moyle VK3GK, Chris Dimitrijevic VK3FY and Steven Green VK2TSG. Each retiring director is eligible for re-election.

A director must be a voting member of the WIA and must hold an Australian amateur radio license and a Company Director Identification Number.

A nomination form is available on the WIA web site and at the link in the text version of this broadcast.

Candidate information will be posted online and emailed to members. Members are requested to ensure that their email address is correctly recorded on the WIA membership register to ensure emails are not delivered to incorrect addresses.

Delivery to the Returning Officer may be made by hand when the WIA national office is open or by mail to the Returning Officer. Detailed delivery information is available in the text version of this broadcast.

Delivery to the Returning Officer at:

Wireless Institute of Australia National Office
Unit 20, 11-13 Havelock Road
Bayswater
Victoria 3153

or by mail to:
The Returning Officer
Wireless Institute of Australia
PO Box 2042
Bayswater
Victoria 3153

Nominations received by facsimile, email or by other electronic means cannot be accepted.



One Day Expedition to Mt William

Contributors Robert VK3ARM, Chris VK3QY, Terry VK3UP and David VK3GP

On Friday 29th September a small group of four Amateurs activated Grampians National Park and Mount William. At 6 points on SOTA, the mount qualifies in the top points range.



Looking back down the single lane road and it is indeed steeper than it looks.

I'm sure that Chris (VK3QY), David (VK3GP) and Terry (VK3UP) would agree that I seriously misjudged the climb from the car park to the summit. My memories of the walk to the summit were based on my experience 20 years ago when I was somewhat younger and a lot fitter.

I'd suggested during planning that the single lane road from the Mount William carpark became quite gentle after the first half a kilometre. Boy, was I wrong!

The climb did in fact become gentle.... About 50 metres from the peak! Carting up our gear, it was a complete slog. In a car, it would have been first gear all the way!

Mal (VK3OAK) had to pull out after suffering an arm injury. I'm so grateful that he didn't take up my offer to push him to the top in a wheel barrow!

Apart from that small (!) issue, we had a successful day, making 28 SOTA and Park contacts on 40 and 20 metres. On 20, most notable were contacts to VK4, VK6, New Zealand, Texas (USA) and Ukraine.

Chris made successful contact on 2.4 GHz and lower VHF/UHF bands, helped by David with



Robert VK3ARM) with FT-897

QSOs to Mount Innes. (Ref, Mt Innes, <https://www.buninyong.vic.au/mt-innes-hastie-s-spring>)

Quite a few others (Muggles) who'd walked to the top showed interest in our activation so we were able to share our hobby with them.

After heading back down, Terry and Chris went their own ways but David and I enjoyed ice-creams from that famous locality in Halls Gap.

I made contact on air with Doctor Chris on the way home. He remarked that he'd love to take part in a further activation and would be happy to cart all the gear to the top (and perhaps us as well Tim?).

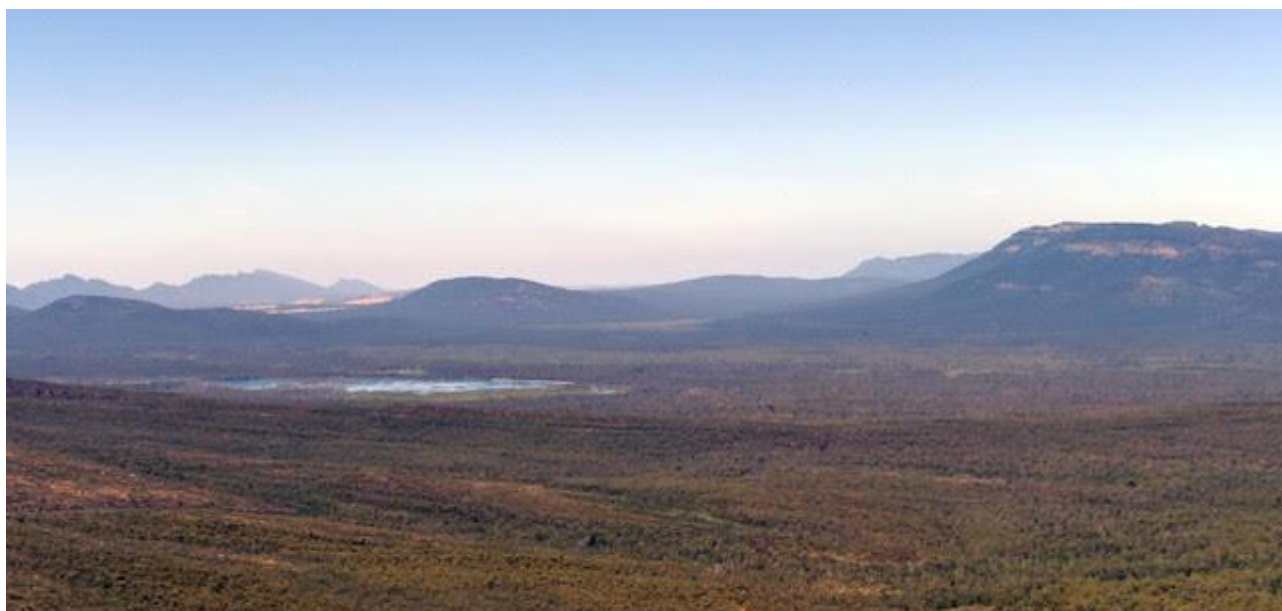
Personally, I felt good the next day. That was after a fourteen-hour sleep! I was so knackered after arriving home that by 9pm I called it quits.



David (VK3GP) using an IC-705 into 2/70 Antenna. Microwave Gear on the board built by Chris (VK3QY). Amateur Repeaters are on the tower in the background.



Terry (VK3UP) on 20 Metres using Robert (VK3ARM) FT-897. Robert's JPC-12 Vertical is shown at the left. Worked sensationally on 20 Metres.



From Reed Lookout looking towards Lake Wartook, Victoria Valley and other ranges. Park activation with stunning views...

Does Reed Lookout area qualify as a Peak? It is a peak of sorts with great views into the centre of the Grampians and out to the west, with no grunt required!

Perhaps a thought for a park activation another day?

Reed Lookout turnoff is located off the road from Halls Gap towards Zumsteins, a small distance past the Boroka Lookout turnoff.



Robert getting serious now. Off with the clothes.



Robert & Chris testing the gear.

What do you think?

Maybe a short stroll to the Pinnacle? NO!!!

With the Mount William pictures I've included two photos taken previously from Reed Lookout, looking towards the Fire Tower and into the centre of the Grampians.

Elevation at the lookout is 760 metres above sea level compared to 1197 for Mount William and 233 for Halls Gap.

Robert VK3ARM... Begging Forgiveness...

The SPARC Rosebud Radio Fest

Eastbourne Primary School Auditorium, Allambi Avenue, Rosebud Vic.
Melway reference 169 K5. Follow the signs from Boneo Road.
Talk in on VK3RSP (146.675) from 8 AM.

The SPARC ROSEBUD RADIOFEST - SUNDAY NOVEMBER 12th 2023

FORUM TOPIC

MULTI-OPERATOR REMOTELY CONTROLLED AMATEUR RADIO STATIONS

Presented By

STEVE KENNEDY VK6SJ

“Remotely operated stations have become more popular in recent times, though cost and complexity may limit set up. Worthy of consideration is the pooling of resources by friends or even clubs, to build a station suitable for multiple users.

This presentation looks at all aspects of radio type, IT requirements, rotator control, antenna switching, DC & AC supply control, and multiple users.



The Other End to the One Day Expedition to Mt William

Contributor Tom, VK3DMK

While the Mt William Expedition was setting up, another group made up of Peter VK3PWG and Bob VK3BNC was setting up their gear on a hill above Buninyong at Mt Innes, along with Mal VK3OAK and Lach VK3ALM.

(Ref, Mt Innes, <https://www.buninyong.vic.au/mt-innes-hastie-s-spring>)

An enjoyable time, some 2.4GHz working between the two locations on a nice Spring Day.



Come Along to the BARG Coffee Mornings

Excellent turnout for this weekly club activity this month.



Every Thursday at 10 am
Food Seduction on Doveton
524 Doveton St Nth Soldiers Hill
(The old Gove Bike Shop)

ANOTHER GREAT MONTHS INSTALLEMENT OF ARTICLES
THANKS TO ALL WHO CONTRIBUTED.

IF YOU THINK YOU CAN WRITE OR CONTRIBUTE SOME
PICTURES OF CLUB OR YOUR AMATEUR RADIO
ACTIVITIES
FEEL FREE TO CONTACT ME.
73 TOM VK3DMK.
tomvk3dmk@gmail.com

13th Annual Keith Roget Memorial National Park Award

Keith Roget Memorial National Parks Award

November Saturday 11th & Sunday 12th 2023



The aim is to encourage and recognise portable operation in Victoria's 45 National Parks, and the logging of contacts with those in the parks.

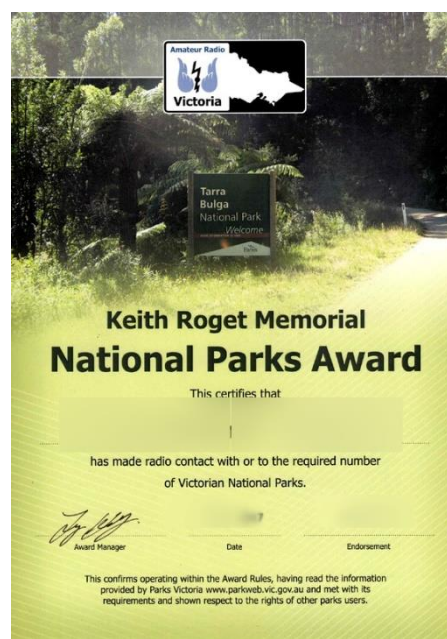
The rules are available at, <https://www.amateurradio.com.au/awards>, and include how to qualify for certificates, and the ultimate recognition of 'all parks plaques' that are issued.

A driving force behind this award which dates back to the 1970s is the late Keith Roget VK3YQ (sk), himself a portable operator, and notable figure in WIA Victoria and the federal arena. His widow, Jean agreed in the 1980s that it was fitting to rename the award in his memory.

Amateur Radio Victoria station, VK3WI, will commence activities on Saturday morning from Burrowa-Pine Mountain National Park, which is one of the 45 VK3 National Parks and is eligible for Award contacts.

The Award is organised and sponsored by Amateur Radio Victoria (ARV)

<https://www.amateurradio.com.au/>
<https://www.vk5pas.com/keith-roget-memorial-national-parks-award.html>
<https://vk5pas.org/krmnpa/>



Musings from the Doc, VK3CFH

Professor Brian Cox explains the present theory of the cosmos on television, and in personal appearances – with great pictures and fanfares.

In summary;

1. No more Earth Centred astronomy.
2. The Earth moves around the Sun.
3. The Universe is infinite.
4. The Universe is constituted of innumerable worlds substantially similar to those of our Solar System.

Well! But!

On February 17, 1600, Giordano Bruno, was burned alive with his tongue in a gag after an eight-year trial in Venice and Rome for such pronouncements!

I hope our scientists don't change their minds, or there might be a conflagration (great and destructive fire: Oxford Dictionary) of cosmologist!

[https://en.wikipedia.org/wiki/Brian_Cox_\(physicist\)](https://en.wikipedia.org/wiki/Brian_Cox_(physicist))

https://en.wikipedia.org/wiki/Giordano_Bruno

<https://www.oed.com/search/dictionary/?scope=Entries&q=conflagration>



The trial of Giordano Bruno by the Roman Inquisition. Bronze relief by Ettore Ferrari, Campo de' Fiori, Rome.

Don't Forget the 100 years of Amateur Radio.

This BARG activity has been moderately successful.

Just under half a century of awards have been issued so far.

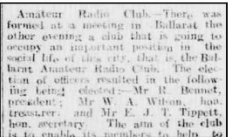
2023 is the centenary year. The opportunity to claim an award will remain open until the end of December.

Check the BARG Webpage if you are interested.

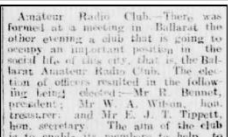


Some Very Recently Issued 100 Years Awards

**100 Years of Amateur Radio in Ballarat**
This Certificate is presented to Amateur Radio Station
VK3SAW- JOTA Station
Operated for The 1st Warracknabeal Joey's: Tyson, Hendrix, Luke and Thomas
for having made radio contact with the Ballarat Amateur Radio Group station VK3BML or other Ballarat based station, commemorating 100 years of known Amateur Radio in Ballarat.
This certificate is confirmation of making a valid QSO during that narrow window of opportunity during which we recall and acknowledge the efforts of past local Amateur Radio enthusiasts who set the foundations of our hobby a century ago.
QSO Date: 21st Oct 2023 Ballarat station: VK3DMK Tom (BARGNewsletter editor)
Congratulations!

WIRELESS--Join the Ballarat Amateur Radio Club Meeting, 27 Talbot street, south, Wednesday, 13th June, 8 p.m. E. J. T. Tippet, Hon. Sec.

100Years Certificate No. - 052
Read more at www.BARG.org.au

**100 Years of Amateur Radio in Ballarat**
This Certificate is presented to Amateur Radio Station
VK3CMZ - JOTA event Elmore
Thank you for the chat with the JOTA Participants: Elly, Narah, Abi, Myla, Maja, Olivia, Skylah, Amelia, and Audrey. All the best for the future.
for having made radio contact with the Ballarat Amateur Radio Group station VK3BML or other Ballarat based station, commemorating 100 years of known Amateur Radio in Ballarat.
This certificate is confirmation of making a valid QSO during that narrow window of opportunity during which we recall and acknowledge the efforts of past local Amateur Radio enthusiasts who set the foundations of our hobby a century ago.
QSO Date: 21st Oct 2023 Ballarat station: VK3NCC Colin (Vice President BARG)
Congratulations!

WIRELESS--Join the Ballarat Amateur Radio Club Meeting, 27 Talbot street, south, Wednesday, 13th June, 8 p.m. E. J. T. Tippet, Hon. Sec.

100Years Certificate No. - 053
Read more at www.BARG.org.au



They all have a chat on 144 SSB most mornings, local time. Start 144.100 then move to another clear Freq. 5TN, 3DLO, 3DAI, 3CVD, 3HJV, 3AXH and 3DJC are on most mornings. Depending on conditions we look at the Hepburn Charts we have had Gippsland 3MAP also S.A. and NSW. contacts.

Still looking for a ZL and VK6.

Cheers David VK3DJC <https://www.facebook.com/groups/1562968903841316>

Magazine Reviews

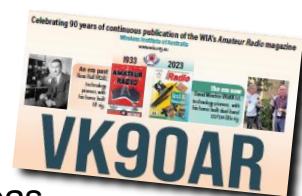
Amateur Radio Vol 91 No 5 2023 Review



- P3 Contents.
- P4 Editorial. Amateur Radio Emergency Communications, Bushfires and the amateur's future role in emergency comms, New column "Listening In".
- P5 Board Comment. 90 Years of AR Magazine, WIA Education Committee, volunteer positions needing to be filled to assist the board, international representation WRC-2023, Dubai.
- P7 WIA News. Antenna launchers are legal in VK3, legal exemption, ACMA 6m win and 9cm loss, 20m-band radar interference resolved, new German basic licence starts June 2024, Amateurs involved in Moroccan quake response, Lost and Found Voyager 2.
- P11 Listening In. The pursuit of listening and the gear and bands to listen to.
- P12 When all else fails. New Zealand radio amateur's response to Cyclone Gabrielle. A look at the contribution that AR played with equipment and personnel in this years cyclone from the Amateur Radio Emergency Communications (AREC) group.



- P17 VK90AR to commence in October, how to book your participation in the event.
- P18 When all else fails. Considering amateur radio's future role in Australian emergency communications. A look at amateur radio's participation in disaster relief in overseas emergency responses. What we need to be prepared and the involvement of WICEN and the implementation of the Commonwealth Disaster Plan and National Emergency Management Agency.
- P24 Newcomer's Notebook. Have Go Box, will travel. What is a go box and why you need one. The important contents and possible sources of hardware. A great thing to have to just go portable.
- P27 WestNews. Information on the establishment of VK6CRO, remote station, Carnarvon. The bands and modes it works and antennas it uses.
- P30 75th Anniversary of the Geelong Amateur Radio Club, VK3ATL. The celebratory dinner and the special event callsign, VI75G.
- P32 2023 Pilliga Park-fest report. Picture and details of the weekend get together in VK2, the operators and activations of WWFF and POTA sites.
- P35 Tripping over a stumbling block where exams were held. An account from Jules VK3JFP about AMC and the location of exams with respect to the examiners property, and refusal to mark exam papers.
- P39 Homebrew three-band 100W HF transceiver. Second article in a series on design and construction of a well set out and documented HF rig.
- P47 Nifty mod for the Poppin' Pulser test project. A rework of Jim VK5STPoppin'Pulser. Modifications involving MOSFET substitution for the LDR/LED combined component.
- P48 Using a Supercapacitor as a battery backup for the Icom IC-7300. The reasoning behind and method of fitting a supercap in place of a Lithium rechargeable battery.
- P51 Spectrum Horizons. Winter Field Day 2023. The story of two clubs endeavoring with their combination of members and gear to create a very successful field day.
- P55 2023 centenary of a cool hobby in Tasmania. Women make their mark across the century. A well presented history of YL, WAGs and ALARA in VK7.
- P59 ALARA. Reminder of the Hobart 2023 ALARAmeeet, 3-6th October. A special event callsign and some support from ICOM.
- P64 Below 25. JOTA 2023. Some information on its history and dates for 2023.
- P65 WIA DX Awards. Some new awards listings, DXCC in most modes.





Are you interested in becoming an amateur radio operator?

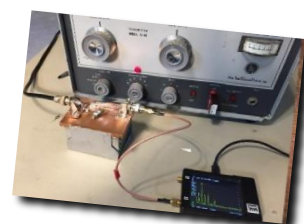
If you are interested in WIA membership, the Amateur Radio Magazine and what is going on in the amateur radio world, then check out the site at;

<https://www.wia.org.au/>

QST October 2023 Review

Review by Craig VK3KG

- P9 Second Century, look at the work of section managers and the ARRL structure. What roles are filled with these volunteers within the ARRL organisation.
- P13 Member: Dr Patricia Reiff W5TAR. Specializes in space plasma and astronomy for the past 50 years. Remembering the first Sputnik launch in 1957 and now at the Rice University as Associate Director of for Outreach programs. Involved in the space science program and has brought the amateur radio club W5YG in along with scouts and her attempt to involve more women into undergraduate studies.
- P24 Letters from members. Various topics.
- P30 Direct audio Streaming from transceiver to Hearing Aids
- P32 100W Dummy load and More. Five resistors, one capacitor in/out terminals then with some solder and mounting in a case there is a small weekend project done.



P34 HF Antenna for Portable Operators. With SOTA and Parks of the air users are looking for simple and light weight

P37 Review the WiMo PicoAPRS Version 4, VHF Transceiver.

P40 Another handheld review. AT-D878UVII Plus. DMR/FM handheld.

P43 The AlexLoop Ham Pack Magnetic loop antenna. Portable magnetic Loop.

P46 Review: Metropower FX775 Power/SWR meter with FX3 3kW coupler. Will handle up to 5kW with the coupler rated 160 to 6M. Uses a 7" diagonal meter in colour touch screen display. The display is operated from the remoted screen unit. The cost was \$729. US for the pair and individual couplers vary between USD\$FX5 299.

www.metropwr.com

P49 Ask Dave covers Antennas of the day. Which is the most popular type of the day. Use an Antenna analyser to pre tune the ant. Finding the right height for the vertical dipole. Building an Inverted V Fan antenna. See also YouTube <https://www.youtube.com/c/davidcasler>

P51 Micro wavelength. Looking at Wave guides. Looking at the plumbing side of being a Radio amateur. There is a lot of material here and the ARRL yearly handbook applies also. Compare coax losses at 10GHz and above to see why the wave guide plumbing is preferred. What are WR75 and WR42 mean? Size is important <http://www.wa1mba.org/wavegd.htm> . For those who do not know what waveguide there sample photos of units from 10GHz to 47GHz are showing against a tape measure for explanation. If you only frequent those bands below these then the title used there is coaxial cable to deliver RF signals to and from the antennas. The next reference is to Paul Wade W1GHZ site and further detail about flanges [not the audio type] and transitions from one sized waveguide type that may have a round flange or a circular one.

www.w1ghz.org/waveguide/waveguide.htm#matchingplate

Waveguides have mismatches also have SWR problems too.!

P53 Intro to WSJT's DXpedition Mode. Find out about the Fox and Hounds

P59 Ham Science Workshop 2023. A radio science collaboration. Was held in March 2023 at the www.hamsci.org also NASA science at <https://science.nasa.gov/citizenscience> . There are photos from the show available at <https://hamsci.org/hamsci2023> .

P60 FCC shows how you can renew your American licence directly on line now.

P66 Wild fires in Hawaii and the ARES prompt responses.



P69 The World Radiocommunication Conference 2023. In Nov and Dec the WRC 23 will be held in Dubai, the United Arab Emirates and one of the special items concerns the amateur satellite services amongst other matters that will be of concern to amateur operators. The amateur service is already the secondary service in these bands that are used for satellite use and we are currently seeing some restrictions and now loss of bandspace in the 3.4GHz band. Use around the 23 cm [1240-1300] of radio navigation services is also important. The ITU has a recommendation for guidance to administrations and this may be accepted at the conference.

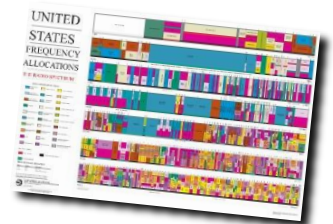


There is possibly a new band [secondary] allocation being raised at 40-50 Mhz for Earth exploration satellites and as amateurs have the nearby 6M band as Primary allocation we would expect protection from the satellite band interference with our 50Mhz band. Watch this space.

Finally the 10-10.5GHz band for International Mobile Telecommunications [IMT] in the Region 2 area as a primary service is drawing some opposition from the IARU and they have some strong support against the proposal from both in and outside the region. We should all be concerned on these matters as its very easy for some to say "well I don't use these freqs so its not really a problem." What would happen if some large interest wants to use 6.5- 7.5MHz for a overhorizon radar or other broadband comms system as the Primary allocation.? Where we tread we tread with care.

P70 Public Service: An interesting read about GMS and FRS for emergency communications in the USA. Using the UHF public band and a number of channels around 426MHz its used to integrate various community groups in time of any civil emergency. Different groups and departments are involved and LP HTT and higher 50W units depending on the service are used.

P74 A colour page map showing all US amateur frequency band allocations.



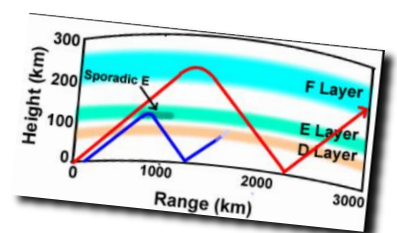
P76 Advertising at Amateur club "Flea markets" to obtain an increase in club memberships. Worth looking at ideas of our own.!

P78 Tim G5TM – Sharing the Enjoyment of portable operations.

P80 Hows DX. KH8/s Wains Island. [300km N of Samoa 5N] due for activation 4Oct-17ct 2023. Hope someone heard and worked them.



P82 World above 50MHz. Activity on 6M in July with rare sporadic E contacts to a number of grids. Predicted long path propagation for 10 and 6M in Solar Cycle 25 in October.



- P91 IT SEEMS TO US. Editorial from QST for Nov 1973 and it was discussing the 1923 Spanning of the Atlantic between the US and France using a wavelength of 100 Metres.
- P92 From the edition of QST Nov 1973. A homemade VOX accesory.[two twin valves]. Single side band preamp to improve transceivers. [single IC].
- P96 Celebrating our legacy. A mateurs letters about how they started in radio and some of the gear available or built then. Is this familiar to you.?
- P98 Classic Radio. University group restores two radios.
Hallicrafters SX-28 and the RME-69 [in storage for nine decades]
- P100 100, 50 and 25 years ago. QST Index's.
- P118 Found amongst the commercial adverts. A microwave antenna 32" for your new ICOM IC-905 Radio. [no price] lucky if they would post it also!



Still grouse to read these ads and look at the supply market in amateur gear from the US.
73 for this month Craig VK3KG

Silicon Chip October 2023 Review

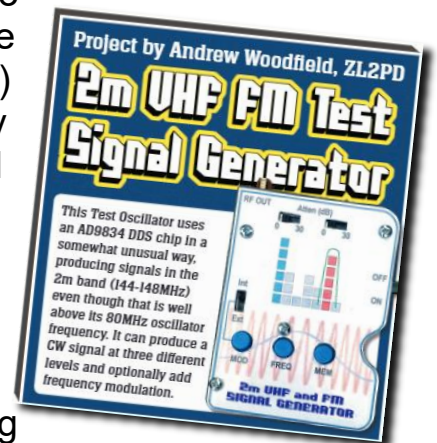
- P12 The History of ELECTRONICS Part 1, Inventors, and their Inventions. An eyeopener onto the world of electronics/electricity and the many inventors that helped to form our understanding of the technology. This first part looks at the inventors from BC to Thomas Edison and Alexander Graham Bell and some of the devices and ideas that they conjured up. This article fits in with the ongoing article from previous Silicon Chip magazines about the field we enjoy playing/working in.
- P28 1kW+Class-D Amplifier, Part 1. A class D monoblock amplifier using some pre-built modules and power supplies to deliver 1kW into 2Ω Loads and will still be able to perform with lower power into 3-8Ω. Six SMPS provide the necessary current to power this amplifier, suitable for PA systems. Fitted with various monitoring circuits to help keep your speakers and amplifier safe, this first part discusses the theory and performance from a D-Class amplifier.



P36 Photographing Electronics. With the availability of top-quality digital photography in our phones and in the available DSLR devices these days. This article shows how simple it is to produce catalogue/brochure quality images of your prized radio gear. A look at colour rendering and the alternatives to Photoshop to do that last minute touch up.



P44 2m Test Signal Generator. Using an AD9834 DDS to produce test signals in the 2m band. Some information on how a DDS (Direct Digital Synthesis) IC works and how versatile it can be. It has a memory for your favourite test spot frequency and $\pm 3\text{kHz}$ FM deviation and inputs for CTCSS and any external audio modulation. Using an ATiny45 as the controller it has a few simple controls to get you going.



P54 The Linshang LS172 Colorimeter. This review is about a device that will help you match you living room décor to the lounge seat colour. It has a colour display that tells you all there is to know about the colour of the sample you have it scanning.

P61 Circuit Notebook. Mini inverter to power a soldering iron, Improved gesture recognition software for the March 2022 gesture recognition project, Raspberry Pi Pico W BackPack 'analog' clock, Automatic AI Doorman using a Maixduino.

P64 TQPF Programming Adaptors. Programming jigs to connect to the Microchip PICkit4/5 in-circuit debugger. Instructions on how to build and drive your programmer.

P72 Bench Power Supply MK2, Part 2. Continuing instructions on the revised 30V 2A supply, along with fitting a case and labelling the front panel. A comprehensive testing procedure and test table.



P82 1.3inch Monochrome OLED display. How to use this small but very useful display with I2C interface. Connection and link to code you can try using a Micromite controller.

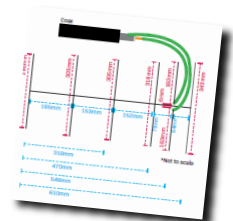
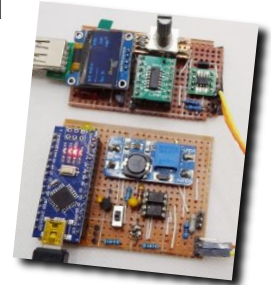
P90 Servicemans's Log. A home, personal repair, electron microscope vacuum pump, ATA automatic swing-gate and reviving an old motor.

P98 Vintage Radio. Imperial Japanese Army (IJA) Chi Receiver. A Pacific Campaign WW2 Japanese receiver, looking at the clean layout and the work needed to restore it to working order. This appears to be a rare historic radio.



DIYODE October 2023 Review

- P8 New and Review. Altronics 2024 Catalogue, available online.
- P14 Portable Power. A variable power supply using a power bank. The device includes a Power Bank Spoofer (PBS). This keeps the power bank provide g output with low current loads that would normally cause the bank to close down. A digital display and panel control lend to making the supply give a variable output with current monitoring, all the building instructions with Veroboard construction.
- P34 High Voltage (HV) Unified Program and Debug Interface (UPDI) Programmer. This device is another method to program microcontrollers, in this case the ATtiny3224. The project includes the code needed using an Arduino Nano as the programming interface. An explanation of the HV UPDI process is also given.
- P40 What's New. ESP32-S3 development board, CREALITY 3D ENDER 3 V3 SE 3D Printer, Heatshrink Tubing Pack.
- P44 Fundamentals. Building UHF Antennas. Discussion on the basics of antenna principles such as radiation pattern, frequency, wavelength, wires, connections, antenna loading coils, monopole antenna, dipole antenna, J-Pole, Slim-Jim, Yagi and wire configurations.
- P58 Concrete Clock, A Touchless Night Lamp. An Arduino-based clock with gesture-activated LED night light, all mounted into a unique concrete artwork structure. Uses basic Arduino modules, with full construction and operation instructions as well as the concrete assembly details.
- P68 New Heights, High Altitude Weather Balloon, Part 4. Update on a very interesting STEM project.
- P70 IOT Garden Water Control. Uses an ESP8266 to control via a user interfaced schedule the watering of your garden area with IOT interface for convenient system monitoring.
- P84 Secret Code. The latest Arduino IDE v2.2.1 release to see what improvements have been made that makers can benefit from. With a more interactive interface and better formatting system the IDE is still Open Source.
- P86 Kids' Basics. Automated Foghorn. Using LM311 and a couple of LM555 the project uses a light detection system to detect a fog and active the speaker driven foghorn sound. Great step by step instructions and illustrations.



Back Copies of BARG inc. Newsletters

There are available on the BARG website scanned copies of old BARG Newsletters.
<https://www.barg.org.au/>

Colin VK3NCC with the copies supplied by Craig VK3KG has been scanning them and adding to the collection on the website.

Great job....

	B.A.R.G. Inc. NOMINATION FORM
	Ballarat Amateur Radio Group—Inc # 6953T
DATE: _____	
I wish to Nominate _____ CALL: _____	
For the position of _____ of BARG Inc.	
Nominated by: _____ and _____	
Nomination accepted by: (Nominee) _____	

Yes 32 pages!!!

Why? Because we are getting a great response from members and non-members, not just responding to requests but volunteering subject matter to include.

If you have an idea or making something, heading into the wilds of this wide brown land with Amateur Radio on board, doing a one day DXpedition, anything Amateur Radio themed, feel free to submit your articles and or pictures.

tomvk3dmk@gmail.com